

418 Rec'd PCT/PTO 11 JUN 1999

FORM PCT 1390  
REV. 5/93

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NO.  
GUENTER-1 (PCT)TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO (if known, see 37 CFR 1.5)

09/319828

INTERNATIONAL APPLICATION NO.  
PCT/EP98/06424INTERNATIONAL FILING DATE  
OCTOBER 9, 1998PRIORITY DATE CLAIMED  
OCTOBER 16, 1997TITLE OF INVENTION  
PLASTIC LAYERAPPLICANT(S) FOR DO/EO/US  
WALTER GUENTER

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau)
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
  - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:  
Copy of cover page of WO 99/20707  
PCT/RO/101 (German)

APPLICATION NO. (if known, see 37 CFR 1.5)

09/319828

INTERNATIONAL APPLICATION NO.  
PCT/EP98/06424ATTORNEY'S DOCKET NO.  
GUENTER-1 PCT

\_\_\_ The following fees are submitted:

Basic National Fee (37 CFR 1.492(a)(1)-(5)):

Search Report has been prepared by the EPO or JPO.....\$840.00

International preliminary examination fee paid to USPTO (37 CFR 1.482)  
.....\$670.00Neither international preliminary examination fee paid (37 CFR 1.82) nor  
international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....\$970.00International preliminary examination fee paid to USPTO (37 CFR 1.482)  
and all claims satisfied provisions of PCT Article 33(2)-(4).....\$96

ENTER APPROPRIATE BASIC FEE AMOUNT =

\$ 840.00

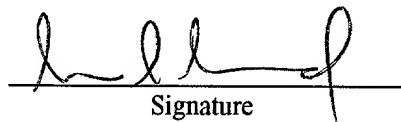
Surcharge of \$130.00 for furnishing the oath or declaration later than \_\_\_ 20 \_\_\_ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

Claims	Number Filed	Number Extra	Rate		
Total Claims	14 - 20 =	- 0 -	X \$18.00	\$	
Independent Claims	1 - 3 =	0	X \$78.00	\$	
Multiple dependent claim(s) (if applicable)			+ \$260.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$ 840.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$ 840.00	
Processing fee of \$130.00 for furnishing the English translation later than ___ 20 ___ 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$ 840.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				See cover sheet attached to assign \$ to be charged to Deposit Acct	
TOTAL FEES ENCLOSED =				\$ 840.00	
				Amount to be: refunded	\$
				charged	\$

- a. ☒ A check in the amount of \$ 840.00 to cover the above fees is enclosed.
- b. \_\_\_ Please charge my Deposit Account No. 03-2468 in the amount of \$ \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:  
COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576-1696  
(516) 365-9802

  
Signature

Allison C. Collard  
Reg. No. 22,532

Express Mail No. EL 323394851 US  
Date of Deposit June 11, 1999

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231

  
Ingrid Mittendorf

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: WALTER GUENTER-1 (PCT)  
PCT NO.: PCT/EP98/06424 FILED: OCTOBER 9, 1998  
TITLE: PLASTIC LAYER

PRELIMINARY AMENDMENT

ATTN: BOX PCT  
Assistant Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

Preliminary to the initial Office Action, please amend the  
above-identified application as follows:

IN THE CLAIMS

Please amend the claims as follows:

Claim 5, line 1, please delete "one of the previous claims"  
and insert --claim 1--.

Claim 6, line 1, please delete "one of claims 1 to 4" and  
insert --claim 1--.

Claim 7, line 1, please delete "one of the previous claims"  
and insert --claim 1--.

Claim 8, line 1, please delete "one of the previous claims"  
and insert --claim 1--.

Claim 9, line 1, please delete "one of the previous claims"  
and insert --claim 1--.

Claim 11, line 1, please delete "one of claims 1 to 8" and  
insert --claim 1--  
Claim 12, line 1, please delete "one of the previous claims"  
and insert --claim 1--.  
Claim 13, line 1, please delete "one of the previous claims"  
and insert --claim 1--.  
Claim 14, line 1, please delete "one of the previous claims"  
and insert --claim 1--.

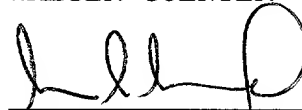
REMARKS

By this Preliminary Amendment, the multiple dependency of  
certain of the dependent claims has been removed so as to avoid the  
surcharge associated therewith. No new matter has been introduced.

Entry of the Amendment is respectfully requested.

Respectfully submitted,

WALTER GUENTER



Allison C. Collard  
Registration No. 22,532  
Attorneys for Applicant

COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576  
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EXPRESS MAIL NO. EL 323394851US  
Date of Deposit: June 11, 1999

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail  
Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the  
Box PCT, Assistant Commissioner for Patents, Washington, D.C. 20231.

  
Ingrid Mittendorf

Fo7249PCT

4P Folie Forchheim GmbH

Release blend

### Description

#### Plastic layer

The invention relates to a plastic layer that has release properties towards adhesives and/or adhesive materials.

Such layers generally consist of silicone and are applied to a plastic film or a similar substrate in a separate operation.

The purpose of the invention is to provide these release properties earlier, in the course of the production process.

In the solution to this problem proposed by the invention, the materials that produce the release properties are incorporated in the plastic layer and can be extruded with it.

This not only facilitates production very considerably; the level of the release properties is easy to set as well.

In accordance with an advantageous further development of the invention, the basic polymer is provided with modified properties, as a result of which the release properties are achieved.

The required strength of the release properties can be taken account already in production of the basic polymer.

In another advantageous further development of the invention, the release additive incorporated is based on silicone compounds.

The level of the release properties can be controlled very easily when the additive is incorporated in this way too.

It is also very advantageous if in accordance with another further development of the invention substances similar to polyolefins are incorporated as release additives.

All of these developments make sure that the materials with which the release properties are achieved only migrate into the adhesive to an insignificant extent if at all.

It has also proved to be very advantageous if the release additives are incorporated in the plastic during polymerisation.

In another advantageous development, the release additives are embedded firmly in the plastic matrix.

In a further advantageous development of the invention, fillers that are, for example, structured as inorganic compounds are provided as release additives.

It has proved to be particularly advantageous in production of the plastic layer if the layer is manufactured from a masterbatch.

In this case, the masterbatch can contain a consistent proportion of the release additives; the final percentage accounted for by the release material is then determined by the plastic-to-masterbatch mixing ratio.

The plastic layer in accordance with the invention can be used as a single-layer material. This single-layer material can be extruded onto a substrate layer.

A plastic film or a paper web can, for example, be provided as the substrate layer.

In accordance with another further development of the invention, it is, however, also possible for the layer to be produced by the coextrusion process. In this case a substrate layer can be provided with the plastic layer with release properties not only on one side but also on both sides.

In accordance with another advantageous further development of the invention, the thickness of the plastic layer is in the 5 mm range.

The release properties can be influenced even more if in accordance with another further development of the invention the plastic layer and/or the substrate film for it is embossed.

In a preferred embodiment, a plastic film is produced by the coextrusion process together with a plastic layer with release properties. The opposite side of the plastic film from the plastic layer can be coated with an adhesive and the film can then be wound up, the release properties of the plastic layer preventing the adhesive from sticking firmly to this layer. The release properties of the plastic layer can be reached in different ways. It is, for example, possible for the basic polymer to be provided with modified properties already. It is, however, also possible for release additives based on silicone compounds to be incorporated. Another possibility is for substances similar to polyolefins to be incorporated as release additives.

The release additives can either be incorporated in the plastic during polymerisation or be embedded firmly in the plastic matrix.

It is in addition possible to provide fillers that are, for example, structured as inorganic compounds as release additives.

It has proved to be advantageous in the production of the release layer if this layer is manufactured from a masterbatch. In this case, the masterbatch can contain a consistent proportion of the release components, while the final percentage is determined by the addition of plastic.

The coextrusion process has proved to be particularly effective in the production operation itself, it being possible to provide the release layer on either one or both sides.

It is, however, also possible to apply the release layer to a substrate web by the extrusion process; a plastic film or a paper web can be used here as the substrate web.

The thickness of the plastic layer is chosen according to the requirements in each individual case; a thickness of about 5  $\mu$  has proved to be particularly advantageous.

The release layer or - if it is applied to a substrate film - the complete material combination can in addition be embossed, in order to influence the release properties even more.



Fo7249PCT

4P Folie Forchheim GmbH

Release blend

### Claims

1. Plastic layer that has release properties towards adhesives, wherein the materials that produce the release properties are incorporated in the plastic layer and can be extruded with it.
2. Plastic layer according to claim 1, wherein the basic polymer is provided with modified properties, as a result of which the release properties are achieved.
3. Plastic layer according to claim 1, wherein the release additive incorporated is based on silicone compounds.
4. Plastic layer according to claim 1, wherein substances similar to polyolefins are incorporated as release additives.
5. Plastic layer according to one of the previous claims, wherein the release additives are incorporated in the plastic during polymerisation.
6. Plastic layer according to one of claims 1 to 4, wherein the release additives are embedded firmly in the plastic matrix.

7. Plastic layer according to one of the previous claims, wherein fillers that are, for example, structured as inorganic compounds are provided as release additives.
8. Plastic layer according to one of the previous claims, wherein the layer is manufactured from a masterbatch.
9. Plastic layer according to one of the previous claims, wherein the layer is produced by the coextrusion process.
10. Plastic layer according to claim 9, wherein the layer is extruded together with a substrate layer made of plastic.
11. Plastic layer according to one of claims 1 to 8, wherein the layer is extruded onto a substrate web, for example a web of paper.
12. Plastic layer according to one of the previous claims, wherein the layer is located on either one or both sides of a substrate layer.
13. Plastic layer according to one of the previous claims, wherein the thickness of the layer is in the 5 mm range.
14. Plastic layer according to one of the previous claims, wherein the plastic layer with the release properties and/or the substrate film for it is embossed.

**Fo7249PCT**  
**Release blend**

**4P Folie Forchheim GmbH**

### **Summary**

#### **Plastic layer**

**Plastic layer that has release properties towards adhesives, where the materials that produce the release properties are incorporated in the plastic layer and can be extruded with it.**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**PLASTIC LAYER**

the specification of which (check only one item below):

☐ is attached hereto.

☐ was filed as United States application

Serial No. \_\_\_\_\_

on \_\_\_\_\_

and was amended

on \_\_\_\_\_ (if applicable).

☒ was filed as PCT international application

Number PCT/EP98/06424

on October 9, 1998

and was amended under PCT Article 19

on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT International application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Germany	197 45 624.3	16 October, 1997	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

8. JUN. 1999 11:33

+49 9191 81450

COPIED DECLARATION FOR PA  
(Include Reference to PCT International App.)

516 365 9805 VER OF ATTORNEY

NR. 5809 'S. 3'  
ATTORNEY'S DOCKET NUMBER

I hereby claim the benefit under Title 35, United States Code, Section 119(c) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

**PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:**

U.S. APPLICATIONS			STATUS (Check One)		
U.S. APPLICATION NUMBER	U.S. FILING DATE		PATENTED	REJECTED	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO.	PCT FILING DATE	U.S. SERIAL NUMBER ASSIGNED BY			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number):

ALLISON C. COLLARD, Registration No. 22,532;

EDWARD R. FREEDMAN, Registration No. 26,048;

ELIZABETH COLLARD RICHTER, Registration No. 35,103

WILLIAM C. COLLARD, Registration No. 31,411

CHRISTOPHER B. GARVEY Registration No. 31,015

Send Correspondence to:

**COLLARD & ROE, P.C.**  
1077 Northern Boulevard  
Roslyn, New York 11576

Direct Telephone Calls to:  
(name and telephone number)  
(516) 365-9802

2	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
1	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY
2	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
0	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
2	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR (A)

SIGNATURE OF INVENTOR (B)

SIGNATURE OF INVENTOR (C)

DATE

09.06.1999

DATE

DATE